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B1
42. (NEW) The composition of claim 1, wherein said dose comprises about 44 μ M to about 390 μ M substance P peptide.

43. (NEW) The composition of claim 1, wherein said dose comprises about 44 μ M to about 83 μ M substance P peptide.

44. (NEW) The kit of claim 24, wherein the carrier is suitable for topical application.

45. (NEW) The kit of claim 24, wherein the carrier is suitable for direct injection into the affected area.

46. (NEW) The kit of claim 25, further including a dissolving patch or bandage.

In the specification:

Please substitute the following paragraph for p. 3, lines 3-5.

A5
Also within the invention is a kit containing at least one unit dose of an antimicrobial SP peptide or mimetic packaged together with a label, instructions for use, or means of administering the compound.

Please substitute the following paragraph for p. 11, lines 15-26.

A6
Peptides were synthesized by respective Boc- or Fmoc- chemistry in solid phase by methods known in the art, e.g., Misicka, et al., Biochemical & Biophysical Research Communications 1991:180(3):1290-7. Crude peptides were purified by gel filtration on Sephadex LH-20 (in methanol), followed by preparative HPLC. All peptides were confirmed to have correct amino acid analyses and molecular weights by FAB-MS. For microbiological study, peptides in acetate form were used. The sequences of the peptides are: SP, Arg-Pro-Lys-Pro-Gln-Gln-Phe-Phe-Gly-Leu-MetNH₂ (Fig. 1, SEQ ID NO:1); SP antagonist, Arg-D-Pro-Lys-Pro-Gln-Gln-D-Trp-Phe-D-Trp-Leu-MetNH₂ (SEQ ID NO:2); bradykinin, Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe-Arg (SEQ ID NO:3); neurotensin, Glu-Leu-Tyr-Glu-Asn-Lys-Pro-Arg-Arg-Pro-Tyr-Ile-Leu (SEQ ID NO:4); and indolicidin, Ile-Leu-Pro-Trp-Lys-Trp-Pro-Trp-Pro-Trp-Arg-Arg-NH₂ (SEQ ID NO:5).

Please substitute the following paragraph for p. 11, lines 27-31.

A⁷ SP is expressed in a variety of different animals (see Table 1). Analysis of the sequences of these homologues, in comparison to that of humans (SEQ ID No: 1) yields insight into design of SP peptides embodied herein. The sequence of SP native to the following organisms has been reported:

Please substitute the following paragraph for p. 12, line 21, to p.13, line 7.

A⁸ Peptides having the above consensus offer advantages for use as a novel antimicrobial agent. As SP is an endogenous peptide, found in humans and other chordate and vertebrate animals, it is not antigenic. Therefore continued administration of this agent over time does not provoke an immune response. Further, deletion or substitution one or more of the three carboxy-terminal residues (Gly-Leu-Met) associated with affinity of the SP peptides to a specific SP receptor on cells of the immune system assures that possible undesired side affects of systemic SP administration (e.g., SP-receptor mediated activities such as pain, inflammation, and swelling) are reduced or eliminated. In addition, the antimicrobial activity of SP peptides has a broad antimicrobial spectrum as shown herein, including Gram positive and Gram negative bacteria, and fungi. These data indicate that traditional targets for antimicrobial agents, such as the prokaryotic ribosome or the murein cross-bridges of a bacterial cell wall are not involved as macromolecular targets. Therefore, the compounds described herein cannot be evaded by enzymes associated with multiple drug resistance factors. Topical administration of an SP peptide to an epithelium of a subject offers the advantage that the peptide remains external and does not become systemic.